AMENDMENTS TO THE CLAIMS:

Please cancel claims 7-16 without prejudice.

Kindly amend claims 1-6, and add new claims 17 and 18 as follows.

The present listing of claims replaces all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) A method for the production of heterologous proteinaceous substances in plant material, comprising the steps of:haracterized in that

culturing plant material in a culture medium, wherein the plant material is protonema moss-tissue that produces heterologous proteinaceous substances; and

obtaining is used as plant material and that the heterologous proteinaceous substances produced are obtained from the culture medium without disrupting the producing tissues or cells.

- 2. (Currently amended) The method according to claim 1, characterized in that the proteinaceous substances released into the culture medium are is biologically active.
- 3. (Currently amended) The method according to claim 1, characterized in that thea culture medium—is—used—which is free from sugars, vitamins and phytohormones—or functional fragments thereof.

- 4. (Currently amended) The method according to claim 1, characterized in that the moss tissue is selected from the group consisting of mosses and including liverworts.
- 5. (Currently amended) The method according to claim 14, characterized in that the moss tissue is selected from mosses of the group consisting of *Physcomitrella*, *Funaria*, *Sphagnum* and *Ceratodon*.
- 6. (Currently amended) The method according to claim 14, characterized in that the moss tissue is selected from liverworts of the group consisting of *Marchantia* and *Sphaerocarpos*.
 - 7. (Canceled)
 - 8. (Canceled)
 - 9. (Canceled)
 - 10. (Canceled)
 - 11. (Canceled)
 - 12. (Canceled)
 - 13. (Canceled)
 - 14. (Canceled)
 - 15. (Canceled)
 - 16. (Canceled)
- 17. (NEW) A method for the production of heterologous proteinaceous substances in plant material, comprising the steps of:

culturing plant material in a culture medium, wherein the plant material is protonema tissue that produces heterologous proteinaceous substances, wherein the protonema tissue is selected from the group consisting of *Physcomitrella*; and

obtaining the heterologous proteinaceous substances from the culture medium without disrupting producing tissues or cells.

18. (NEW) The method according to claim 17, wherein the protonema tissue is *Physcomitrella patens*.